

COMMITTEE ON GOVERNMENT REFORM
SUBCOMMITTEE ON ENERGY AND RESOURCES



*OPENING STATEMENT OF
CHAIRMAN DARRELL ISSA
“The Next Generation of Nuclear Power”
JUNE 29, 2005*

Nuclear energy is the subject of renewed interest because of concerns over the security of energy supplies, fossil fuel price volatility, and air quality, as well the recently articulated national goals for developing a hydrogen economy.

At present, 103 licensed reactors are generating power in 31 states. In 2004, nuclear generators produced a record 824 billion kilowatt hours of electricity, accounting for 20 percent of the nation’s electricity.

For more than four decades, the U.S. nuclear industry has focused on improving existing reactor technology. America’s nuclear power plants have an excellent safety operating record and are among the most efficient and reliable in the world. However, there are obvious limits to continued expansion of existing capacity.

In the 21st century, our nation will need more safe, clean, reliable electricity. The Department of Energy is currently engaged in an effort to advance research and development of the next generation of nuclear systems capable of meeting this challenge. The Generation IV program seeks to develop a much more advanced generation of nuclear energy reactors for commercial deployment by 2030. These reactors will have dramatic improvements in the areas of cost, safety, reliability, and sustainability.

The Department of Energy is supporting research in several reactor concepts but priority has been given to the Very-High Temperature Reactor. This technology is the favored design in the U.S. due to its potential for competitive cost use in secondary industrial activities such as hydrogen production and desalinization. This reactor design could also burn uranium, plutonium and other waste products reprocessed from spent nuclear fuel or stockpiled warheads.

In 2004, Secretary of Energy Spencer Abraham launched the Next Generation Nuclear Plant (NGNP) project to develop an advanced nuclear energy system to produce both inexpensive electric power and large quantities of cost-effective hydrogen that could be used as an alternative to fossil fuels. The Department of Energy has designated the Idaho National Laboratory to be the focal point for advanced reactor and fuel cycle development.

The NGNP is a key component of America’s energy future and the federal government must take a leadership role to ensure that a Generation IV reactor is built in the United States. The construction of a Generation IV reactor will ensure that the US regains its position as a

world leader in nuclear energy technology. Other nations are moving forward on Generation IV technologies, and if we do nothing, we will miss a unique opportunity.

The purpose of this hearing is to evaluate the progress of the Department of Energy's Nuclear Generation IV program. We also want to get a better overall sense of the Administration's commitment to move forward with the Next Generation Nuclear Plant project.

We look forward to hearing from our distinguished panel. We are pleased to have:

Mr. Robert Shane Johnson, Acting Director, Nuclear Energy, Science and Technology, U.S. Department of Energy

Dr. David Baldwin, Senior Vice President, General Atomics

Dr. Rowan Rowntree, Independent Scientist, Visiting Scholar University of California Berkeley, Department of Environmental Science, Policy, and Management, retired

Mr. Dave Lochbaum, Nuclear Safety Engineer, Union of Concerned Scientists